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ISLAND COMMENTARY

Kaneohe military base shows leadership on sustainability

By Cynthia Thielen

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Mokapu Peninsula projects out from Oahu's coastline, where it absorbs the brunt of howling winds and stormy seas. The peninsula is home to Marine Corps Base Hawaii, where several thousand Marines, sailors and their families live and work. The base also is the Windward side's largest employer, where hundreds of civilians work in support of the base's mission.

It's easy to see, then, how residences, offices, facilities and amenities aboard the base -- not to mention the airfield -- consume large amounts of electricity. In today's military, large power bills have served as an impetus for some of the most ambitious and progressive "greening" programs in the nation.

Most of us know that defense spending accounts for a large portion of the federal budget. But few people realize that the Pentagon has been pursuing sustainable initiatives and renewable energy generation more aggressively than the vast majority of our nation's state and city governments. Marine Corps Base Hawaii is a prime example.

As the base expanded over the years, its electricity use grew accordingly. Col. Robert Rice, who took command of MCBH in 2007, has made sustainability a lynchpin of his administration, instituting reforms aimed at lowering the base's electricity bill, reducing waste and implementing clean energy systems.

After assuming command, Col. Rice set a lofty goal for the base: energy self-sufficiency by 2015. In fact, the base hopes to take advantage of its renewable resources to become a provider of electricity to Oahu's energy grid. From 2008 to 2009, greening initiatives cut electricity use by 7 percent, helping to reduce MCBH's power bill from \$23 million to \$18 million.

The base pursues LEED certifications for building projects, upgrading systems to conserve water, and installing solar water heaters on all new homes. Air-conditioning and lighting systems were upgraded across the base, greatly reducing energy consumption. To reduce material waste, Col. Rice initiated a phase-out of plastic bags at the point of sale. In December, the base's mess hall switched from Styrofoam utensils and containers to compostable ones made of cornstarch or sugarcane. Taxiway lights at the airfield have been converted to LED bulbs, which use far less energy than conventional lights. The base plans to do the same with runway lights, pending FAA approval.

Mokapu Peninsula's unique promontory charges headlong into the Pacific like a steed into battle. This means that the notoriously rough seas off Kaneohe slam into the peninsula unabated, creating an ideal location for

wave energy conversion. Since 2004, New Jersey-based Ocean Power Technologies (OPT) has been conducting wave energy research at MCBH, in conjunction with the Navy.

OPT recently splashed its third wave energy converter into waters off the base. The buoy is now bouncing boisterously in an agitated sea, recording valuable data and generating renewable energy.

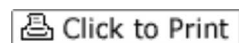
While the base is capitalizing on wave energy, it is also making use of Hawaii's excellent solar resource. MCBH will ultimately meet one-third of its electricity needs with photovoltaic energy, most of that from a project beginning this year. In addition, the base plans to build a biofuel plant, creating an alternative source of power that can provide electricity if the seas are calm or the skies cloudy.

By combining fiscal need with strong leadership and abundant resources, MCBH has become a model for communities pursuing self-sufficiency. Achieving statewide sustainability and energy independence is a monumental task, but state and county policymakers should take heart -- and notes -- from the base's example. MCBH's push for sustainability is proof that the energy revolution will take place in our smaller communities, and that strong local leaders will be instrumental in bringing it about.

State Rep. Cynthia Thielen represents the 50th House District (Kailua-Kaneohe Bay).

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